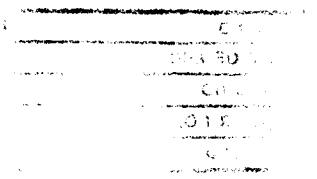

THE PROMOTION OF DENTAL HEALTH AWARENESS AMONG STUDENT NURSES

NO. 25

PROJECT GROUP 5.8/1986

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CONTENTS

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We also wish to acknowledge the genuinely helpful cooperation of 22 student nurses and the staff members of the Nursing School of Caritas Hospital - Sister Martin, Sister Patella, and Sister Grace Law. In addition, thanks are extended to Group 5.6 for their generous donation of oral hygiene packages.

Finally, we wish to express our sincere thanks to Miss Selina Mo and Mrs. Allie Cheung who assisted in the preparation of the manuscript. Their competence and enthusiastic dedication were indispensable to this effort.

CHAPTER 1

SUMMARY

A five-stage dental health education programme was launched among a group of 22 second year student nurses of the Caritas Medical Centre. The aims were to promote dental health awareness among student nurses and to equip them with the necessary dental knowledge and skills so that they may better take care of their patients' oral hygiene. Short-term evaluation demonstrated an improvement in dental health knowledge, positive attitude change, and the attainment of a better oral hygiene standard. Last, but not least, the feedback showed the project was welcome and very useful to the student nurses.

CHAPTER 2

INTRODUCTION

BACKGROUND

The idea of improving the oral health care and oral hygiene standard of hospitalised patients had been planted during our third year B.D.S. course. During that period, we were deeply impressed by the poor oral health of hospitalised patients since we had many opportunities to examine them intraorally in the Medical and Surgical Wards. Hospitals provide a raw field where there should be oral health related project involving the medical personnel and patients.

Nurses, being at the forefront in taking care of patients, are in very good position to promote oral health standards. However, knowing that there was little emphasis on oral health care in the curricula of nursing schools, we were motivated to bring forward the idea into action.

In the long run, the provision of dental health education to nurses is a cost beneficial approach. As the nurses are treating patients in wards, they can motivate patients to take more concern and care of their oral health with minimal costs involved.

AIMS

Our community health project aimed to promote dental health awareness among student nurses and to equip them with the necessary dental knowledge and skills so that they may better take care of their patients' oral hygiene.

OBJECTIVES

In order to achieve these aims, 4 OBJECTIVES were set:

(1) To collect and analyse baseline data information focusing on oral health related knowledge, attitudes, behaviour, and oral health practices of student nurses.

(2) To design an appropriate dental health education programme, based on information obtained as described in objective (1), for student nurses so that they will be furnished with the necessary knowledge and techniques of oral health and its care respectively.

(3) To evaluate the effects of dental health education programme in terms of improvement in oral hygiene standard and oral health related habits and attitudes.

(4) To evaluate the overall project and obtain feedback from student nurses so as to prepare for a sequel to the project.

TARGET GROUP

Our target group is the student nurses of the Nurse Training School at the Caritas Medical Centre. The group is a class of 23 students (Table 1). All were female except one. Their ages ranged from 19 to 25 years.

The nurses were in their 2nd year of training and received 44 hours of teaching per week. All of them have received teaching in the wards. This implies they have experience and practise in patient care, and more or less, know about the patients health status.

The class operates under a block-teaching system. After their period of teaching in the classroom, they will continue their training back in the wards. It is our intention to deliver the programme to them prior to their return to ward teaching.

Number of student nurses

Age		Sex	
19	5	Male	1
20	6	Female	21
21	6		
22	2		
23	2		
24	1		
Total	22		22

Student Nurses Caritas 1986

TABLE 1

CHAPTER 3

PROJECT ORGANISATION

PROJECT OUTLINE

In essence, our strategy was: (Figure 1) first, to obtain data concerning oral health concepts and attitudes of the student nurses through questionnaires and clinical oral examinations. Second, based on these findings, we then formulated a custom made dental health education programme, which was conducted in April. Three weeks after our education programme, we returned and gave the student nurses the same questionnaire to complete as was used at the baseline, and conducted another clinical examination as at the baseline, in order to asses the effects of our education programme and to review their oral hygiene status. Finally, in order to maintain their dental awareness, a tape-slide programme has been prepared and donated to the Nursing School Library.

PREPARATION:

The first visit to the Caritas Medical Centre Nurse Training School took place on the 6th February, 1986. The visit had a 'preparatory' purpose. We had three main objectives:

(1) To introduce our group to the personnel of the School

(2) To present our Project, including the aims, objectives, preliminary planning and proposed schedule, to the School personnel

(3) To collect the information necessary for project planning.

We began our preparatory work by noting the time necessary to travel from the Dental Hospital to the Nurse Training School. On arrival, we received a warm welcome from the Principal of the School, Sister Martin. After our presentation of the Programme and discussion with her, Sister Martin agreed to have our programme incorporated into the teaching period of a group of students. From her, we also gathered information about the curriculum, teaching schedule and system, and number of students in the class, and possible times we could conduct our education programme.

We were then given a tour around the School, including the classrooms, the library and practical room. We were kindly offered use of the facilities for our programme.

All of this information allowed us to proceed further in our planning. We were able to asses the time availability of the students and facilities available at the School. On the whole, the School personnel gave us much help and encouragement.

PROJECT OUTLINE

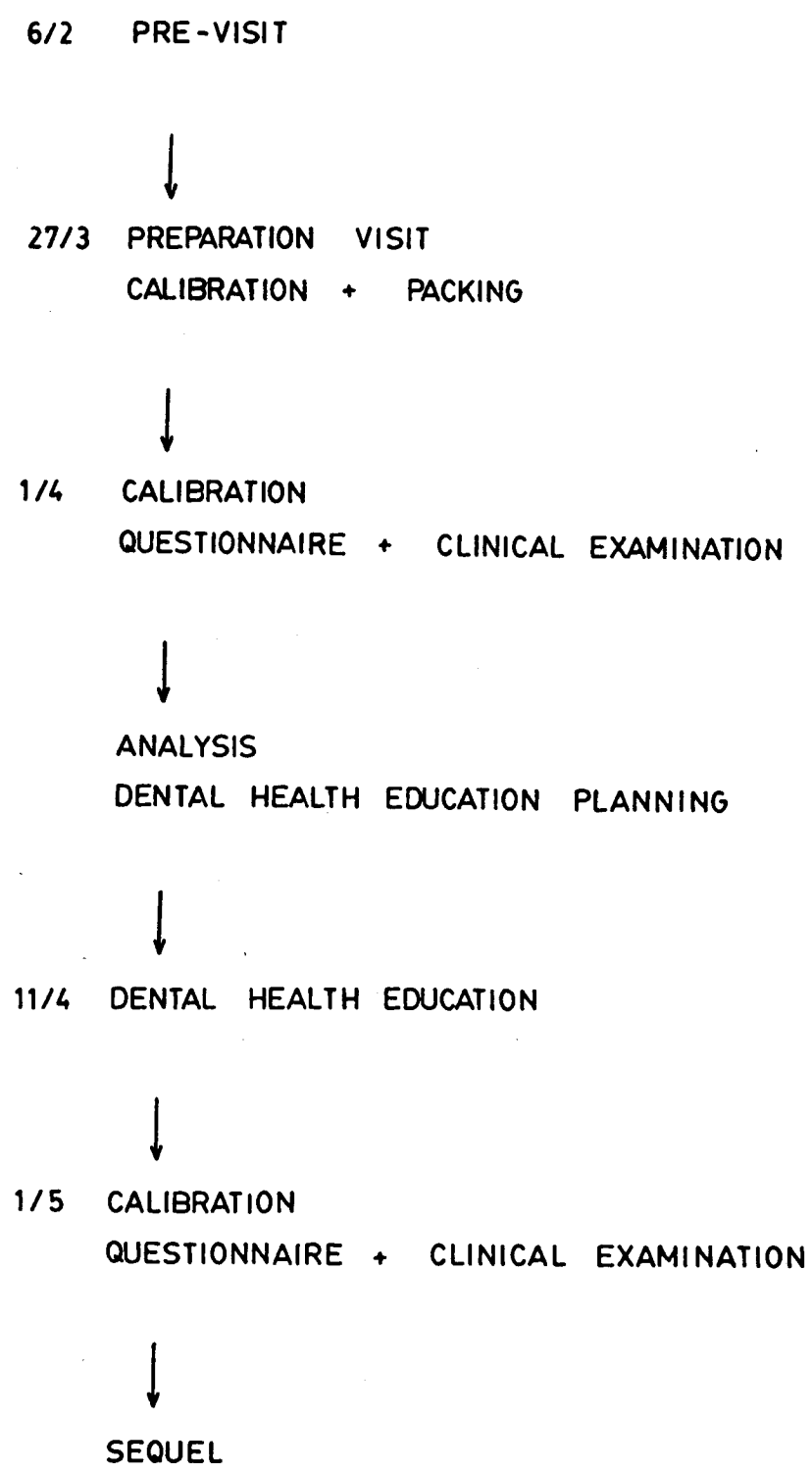


FIGURE 1

CHAPTER 4

STAGE I - BASELINE DATA COLLECTION

QUESTIONNAIRE

The questionnaire serves as an important epidemiological tool to enable us to achieve the aims of the Project.

We have attempted to make the questionnaire understandable and have avoided any 'misleading' or 'leading' words or questions. We received valuable opinions from the dental hygienists who had been involved in similar projects.

The setting of the questionnaire was designed to establish a number of objectives. It should allow one to elicit information from which we may:

(1) Understand the behaviour, knowledge, and attitudes of the student nurses (including some relevant personal data)

(2) Assess the effect of subsequent health education

(3) Promote dental health awareness among the student nurses.

The questionnaire was written in English, but Chinese characters were printed in conjuction with technical terms. Most of the questions belong to the multiple choice type, and where appropriate, open ended questions were used to allow the student nurses to express their views more clearly.

We concentrated on the oral hygiene and dietary habits of the students nurses. We explored their attitudes towards dentistry, as reflected by their previous dental treatment. We also investigated their understanding of the aetiology, manifestation, and prevention of the common dental diseases. In return, they were allowed to write about their opinion about the Project.

To further attempt to minimize error, we invited a variety of personnel to test the questionnaire. They included the clinical and non-clinical staff of the Dental Hospital. The former included the dental surgery assistants while the latter included the receptionists and the clerks. Student nurses of another hospital, being friends of our group members, were also given the trial. In this pre-test, ten questionnaires were given out, and all were completed. Undoubtedly, this greatly helped in the finalization of the questionnaire.

Setting a questionnaire is a good learning experience. It decreases the quantity but increases the quality of the brain cells!

CLINICAL EXAMINATION

Objectives

(1) To collect data on the oral health status of the student nurses.

(2) To analyse the data obtained in objective (i) and on the basis of the findings, develop a health education programme for the student nurses.

(3) To evaluate the influence of the dental health education programme on the oral health habits of the nurses.

Indices used

Plaque index - Silness and Loe (1964)
Gingival index - Loe and Silness (1963)

Four surfaces (mesial, distal, buccal and lingual) of the selected teeth (16, 21, 41, 36, 46) were examined.

In case of missing first molars, the second molar would take its place, while if the particular central incisor was absent, the neighbouring central incisor would be charted instead.

Criteria for the plaque index system.

0 = no plaque in the gingival area.

1 = a film of plaque adhering to the free gingival margin. The plaque can only be recognized by running a probe across the tooth surface.

2 = moderate accumulation of soft deposits within the gingival pocket, or on the gingival margin, which can be seen by the naked eye.

3 = abundance of soft matter within the gingival pocket and/or on the gingival margin.

Criteria for the gingival index system.

0 = normal gingiva

1 = mild inflammation - slight change in colour, slight oedema. No bleeding on probing.

2 = moderate inflammation - redness, oedema and glazing. Bleeding on probing.

3 = severe inflammation - marked redness and oedema, ulceration. Tendency to spontaneous bleeding.

Examination procedure

Examinations were carried out by 2 examiners using portable dental examination chairs with fibre optic light sources, disposable mirrors and periodontal probes (Williams 14W) (Figure 2).

Teeth were not dried during the whole process.

Calibration of examiners

Calibration was conducted on two occasions among dental students in the same group and several dental surgery assistants and cleaners from the Prince Philip Dental Hospital. The dental students were told to stop brushing for 4 days. Fibre optic light sources, disposable mirrors and periodontal probes (Williams 14W) were used. All the subjects were examined. The scores of the subjects were cross-checked to monitor the inter-examiner errors.

Coordination with other dental personnel

Four dental surgery assistants were invited to join us during the examinations. They assisted during the whole examination process.

QUESTIONNAIRE
CLINICAL EXAMINATION

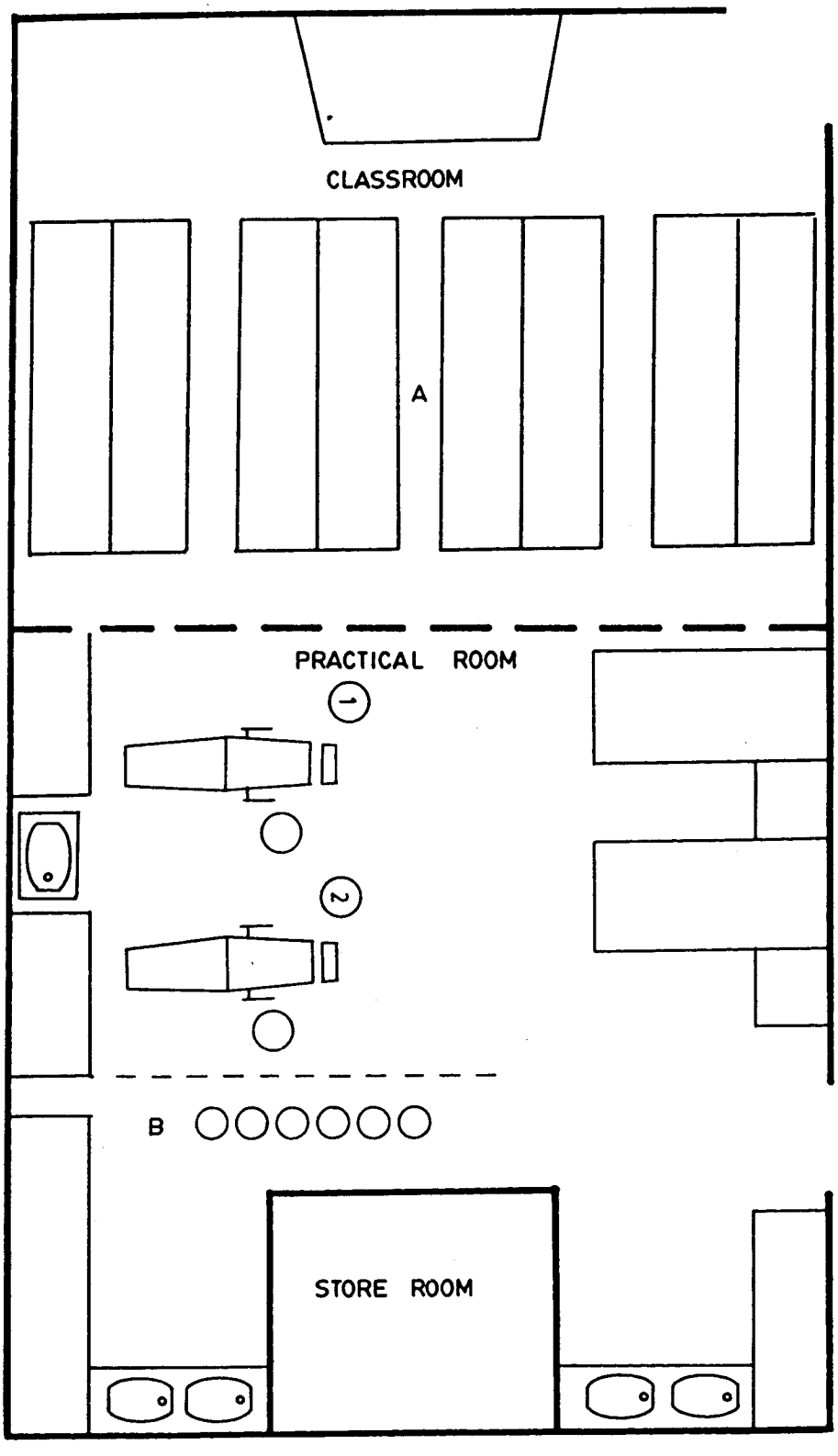


FIGURE 2

CHARTER 5

STAGE II - DATA ANALYSIS AND BASELINE RESULTS

Of the 22 nurses, all but five had previous dental treatment (Table 2). The most common treatment experienced was exodontia. Only five nurses had regular dental check-ups. The reasons given for not having regular check-ups were related to time opportunity, expense, and feelings that it was not necessary (Table 3). Some were afraid. However, 18 nurses considered that the ideal frequency for a check-up should be twice a year (Table 4).

It was found that the nurses were unaware of the serious consequences of oral disease (Table 5). This is illustrated by their behaviour in the management of their own oral health problems. With regard to the management of toothache and dental caries, four nurses ignored the problem, five applied self medication, and two took herbal tea. Their management of periodontal problems demonstrated an even more unsatisfactory appreciation of the nature of this disease.

Daily toothbrushing was practiced by all of the nurses and the nurses used fluoridated toothpaste (Table 6). On the other hand, dental floss was used by only few nurses. Toothbrushing was practiced with the purpose of removing food debris, plaque, and stains. For most nurses, toothbrushing was a habit (Table 7).

They knew that fluoride was used to prevent caries, but some also thought that fluoride prevented periodontal disease as well (Table 8) Almost all nurses knew that the major source of fluoride was from water and toothpaste, although they were unaware that tea was also a rich source (Table 9).

The nurses were generally well informed concerning the causes of caries (Table 10). Most were able to identify the main aetiological factors.

However, they were not all aware of some of the serious consequences of caries (Table 11). For example, only 13 of the 22 nurses appreciated that caries could result in tooth loss.

Concerning the causes of periodontal disease, most nurses knew it was related to poor levels of oral hygiene (Table 12). However, they were generally unaware of the roles of plaque and calculus, although 14 nurses identified bacteria as a cause of periodontal disease.

Most nurses seemed to understand that periodontal disease was associated with swollen and bleedings gums, but only half of them thought it could be associated with tooth mobility or tooth loss (Table 13).

Previous dental treatment

	Baseline
Orthodontics	0*
Extractions	11
Fillings	7
Scaling/prophylaxis	5
Oral hygiene instruction	8
Denture	0
Crown/bridge	0
Root canal therapy	0
No previous treatment	5

* Number of nurses

Student Nurses Caritas 1986

TABLE 2

Reasons for not having regular dental check-ups

	Baseline
No time	5*
Too expensive	6
No dentist available	1
Dental service not satisfactory	2
Unnecessary	5
Fear, for example, pain	4
Others: 1 always forget	1
1 have perfect teeth	1
1 have no such habit	1

* Number of nurses

Student Nurses Caritas 1986

TABLE 3

Ideal frequency for a dental check-up

Frequency per year	Baseline	Evaluation	Change
1	4	3	-1
2	18	18	0
3	0	1	+1

* Number of nurses

Student Nurses Caritas 1986

TABLE 4

Management of dental problems

	Ignore	Dentist/Doctor	Self medication	Herbal tea
Toothache/ toothdecay	4*	15	5	2
Gum problem	8	4	10	5
Tooth mobility	0	6	0	0
Bad breath	1	0	6	3

* Number of nurses

Student Nurses Caritas 1986

TABLE 5

Oral hygiene practice

	Baseline	Evaluation	Change
Daily Toothbrushing	22*	22	
Twice daily toothbrushing	15	16	+1
Flossing	6	15	+9
Daily flossing	1	9	+8
Use of toothpicks	1	2	+1
Use of fluoridated toothpaste	21	21	

* Number of nurses

Student Nurses Caritas 1986

TABLE 6

Reasons for cleaning teeth

	Baseline	Evaluation	Change
Removal of calculus	3*	2	-1
Removal of food debris	22	20	-2
Removal of plaque	14	20	+6
Removal of stains	11	8	-3
Massage of gums	9	16	+7
Habit	18	19	+1
Others: Freshen breath	1	2	+1
Improve appearance	1	0	-1

* Number of nurses

Student Nurses Caritas 1986

TABLE 7

Fluoride prevents

	Baseline	Evaluation	Change
Bad breath	3*	3	
Caries	20	22	+2
Gum disease	8	9	+1

* Number of nurses

Student Nurses Caritas 1986

TABLE 8

Sources of fluoride

	Baseline	Evaluation	Change
Bone soup	1*	4	+3
Milk	2	7	+5
Tea	0	13	+13
Toothpaste	17	21	+4
Water	21	22	+1
Others	0	0	0
Don't Know	1	0	-1

* Number of nurses

Student Nurses Caritas 1986

TABLE 9

Cause of caries

	Baseline	Evaluation	Change
Aging	0*	3	+3
Bacteria	17	22	+5
Food debris	18	21	+3
Heating humour	0	0	
Heredity	2	2	
Plaque	13	18	+5
Sweet foods and drinks	15	19	+4

* Number of nurses

Student Nurses Caritas 1986

TABLE 10

Sequelae of caries

	Baseline	Evaluation	Change
Abscess	10*	15	+5
Bad breath	19	22	+3
Cavitation	19	22	+3
Headache	8	16	+8
Toothache	21	22	+1
Tooth mobility	12	20	+8
Tooth loss	13	22	+9

* Number of nurses

Student Nurses Caritas 1986

TABLE 11

Causes of periodontal disease

	Baseline	Evaluation	Change
Aging	1*	0	-1
Bacteria	14	16	+2
Calculus	8	8	
Careless toothbrushing	17	11	-6
Food debris	9	16	+7
Heating humour	1	1	
Heredity	2	0	-2
Plaque	9	18	+9
Pregnancy	2	12	+10
Sweet foods and drinks	6	8	+2

* Number of nurses

Student Nurses Caritas 1986

TABLE 12

Sequelae of periodontal disease

	Baseline	Evaluation	Change
Abscess	5*	15	+10
Bad breath	8	15	+7
Painful gums	19	19	
Swollen gums	17	21	+4
Bleeding gums	18	22	+4
Toothache	12	14	+2
Exposed root surface	8	20	+12
Tooth mobility	11	16	+5
Toothloss	14	17	+3

* Number of nurses

Student Nurses Caritas 1986

TABLE 13

CHAPTER 6

STAGE III - DENTAL HEALTH EDUCATION PROGRAMME

The education programme, which was developed on the basis of the findings of the baseline study consisted of two main parts - a lecture followed by small group discussions and demonstrations. This took place at the Nursing School.

LECTURE

The objectives of the lecture given to the class of student nurses were:

1. To introduce the two common dental disease, caries and periodontal disease.

2. To introduce the role of plaque as a causative agent in both caries and periodontal disease.

3. To introduce the disease models in relation to the aetiology of both periodontal disease and dental caries.

4. To introduce the proper means of caries and periodontal disease prevention.

5. To provide brief introductory information on some of the common dental problems encountered by hospitalized patients.

The lecture utilized colour slide illustrations (60 slides) and lasted for approximately 20 minutes.

SMALL GROUP DISCUSSION AND DEMONSTRATION

The programme served to highlight effective oral hygiene techniques, with instruction as well as practical exercises. Also introduced were some available cleaning aids and the principles of conservative treatment of dental caries and periodontal disease.

Procedure:

The class was divided into three groups of seven to eight nurses. Two dental students were assigned to each group to act as group leaders(Figure 3). Discussion lasted for about 20 minutes and was followed by a demonstration with a volunteer from the group. Then, they were issued an oral hygiene package and a practical exercise was carried out.

Content and materials:

(1) 'Choice of toothbrush'

This was discussed and samples of suitable and unsuitable brushes were shown. The criteria put forward for determining a suitable toothbrush were first; a head of length equal to the diameter of a one dollar coin, with bristles of toughness similar to the sample shown.

(2) 'Effective oral hygiene technique'

The miniscrub technique for brushing and the loop-technique for flossing were introduced and demonstrated on models. Flossing was described as an adjunct to toothbrushing. Other interdental aids available in the market, such as single-tufted brushes, interdental brushes, and wooden sticks were briefly introduced as well.

(3) 'Disclosing technique'

The use of disclosing tablets was introduced as a means to help develop an effective oral hygiene technique.

(4) 'Introduction to dental treatment'

Prepared tooth specimens were shown to illustrate calculus scaling and restorative techniques; so as to give an idea of what these treatment procedures involve.

Demonstration:

The plaque disclosing technique was demonstrated on a volunteer student nurse. The volunteer was then encouraged to remove the stained plaque by brushing and flossing.

Practical exercise:

Student nurses were instructed to disclose their plaque and to remove it by brushing and flossing.

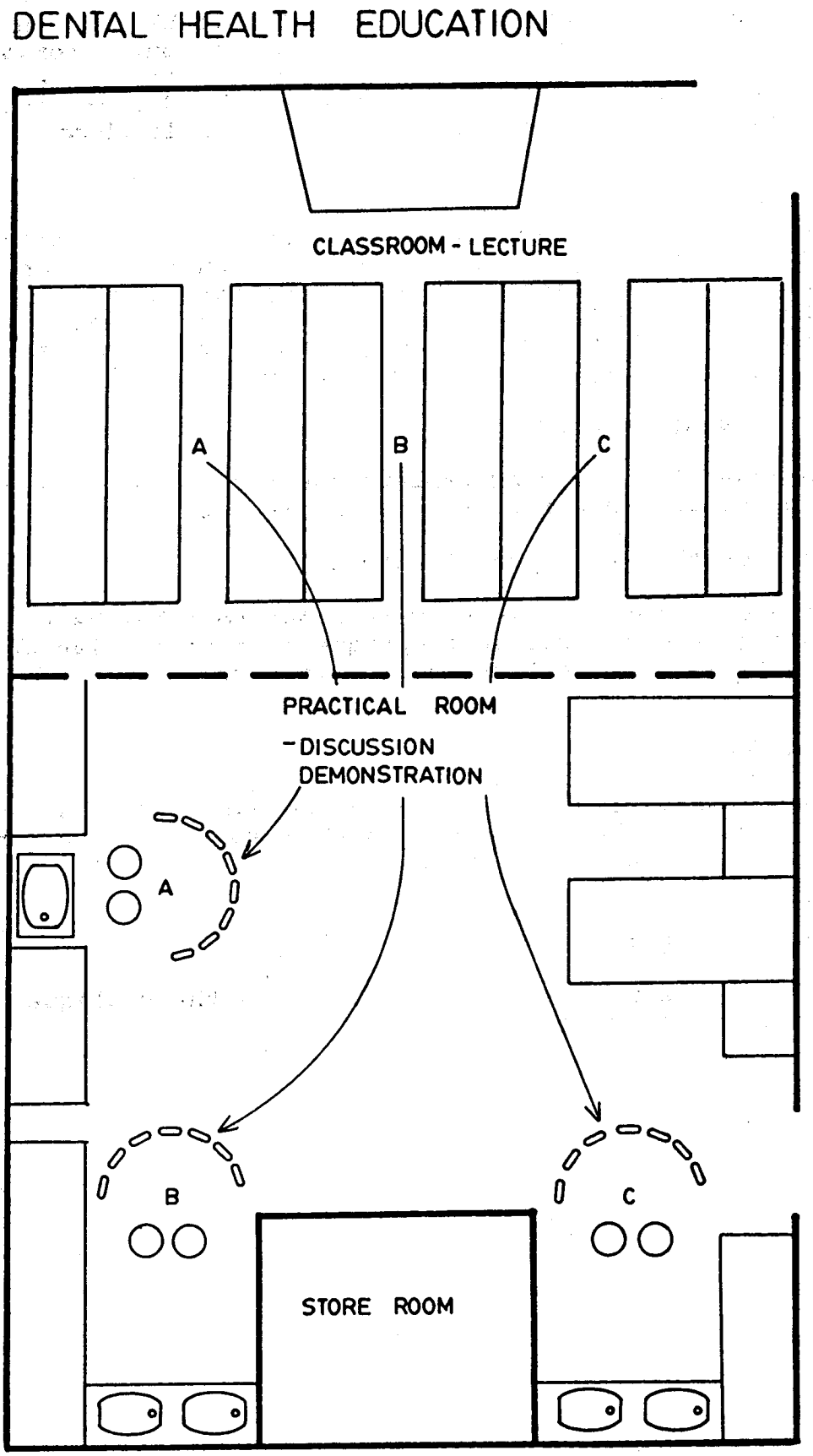

DENTAL HEALTH EDUCATION
CLASSROOM - LECTURE
A
B
C
PRACTICAL ROOM
- DISCUSSION
DEMONSTRATION
A
B
C
STORE ROOM

FIGURE 3

CHAPTER 7

STAGE IV - PROGRAMME EVALUATION

The aim was to evaluate the effect of the dental health education programme on the behaviour of the nurses, and to assess if there had been an improvement in dental health related knowledge.

The examination in Stage IV was conducted in order to assess the oral hygiene status of the student nurses. It was our hypothesis that a change in oral hygiene status would be a consequence of behavioural change brought about by the health education programme. A positive behavioural change would be indicated by a reduction in the number of sites scored 3 for both the plaque and gingival indices.

Although two weeks is a short period of time, it is quite sufficient for an improvement of oral hygiene status to take place.

QUESTIONNAIRE RESULTS

Concerning their oral hygiene habits at evaluation, all of them brushed daily and three-quarters of them brushed twice a day (Table 6). At the baseline, only 6 of them practised flossing, however, after the dental health education programme, 15 of them reported that they used floss, and 9 of them reported that they flossed daily. almost all of them used a fluoridated toothpaste.

Less student nurses consumed sweet snacks and drinks more than once a day at the evaluation stage, but there was an increase in the number of nurses taking between-meal-snacks once a day (Table 14). However, without the use of diet sheets, it is quite difficult to study their habits and analyse changes.

Concerning changes in their knowledge of the causes of caries, almost all of them knew that bacteria, food debris, plaque, and sugar were the main caries aetiological factors at the evaluation stage, but several of them were still confused about the role of aging and heredity in caries causation (Table 10).

There was a general increase in the understanding about the sequlae of caries (Table 11). All of them knew that caries could lead to bad breath, cavitation, toothache, and tooth loss. Many of them also know that abscess formation and headache could also result from caries. But most of them seemed to have the wrong idea that tooth mobility was a sequel of caries.

Concerning changes in knowledge of the causes of periodontal disease, most nurses now understood the combined role of plaque and bacteria (Table 12). However, there was no change in their appreciation of the role of calculus. At the baseline, 17 nurses understood that poor oral hygiene was a cause of periodontal disease. It is difficult to understand why 6 nurses gave a

Consumption of cariogenic food

	Baseline	Evaluation	Change
Between meal snacks	12*	15	+3
once per day	2	9	+7
> once per day	6	3	-3
Between meal drinks	16	16	
once per day	8	6	-2
> once per day	7	5	-2

* Number of nurses

Student Nurses Caritas 1986

TABLE 14

negative response to this question at the evaluation stage. There was an improvement in their understanding the role of modifying factors, such as the effect of pregnancy on periodontal disease. However, the crucial importance of plaque control in preventing CIPD should have been more strongly emphasised.

Concerning the sequel of periodontal disease, the most significant changes observed was their understanding that this disease may lead to abscess formation and to gingival recession (Table 13). There was also an improvement in their understanding that CPID can result in tooth mobility and tooth loss.

Finally, some nurses were still confused about the role of fluoride, and consider it to be useful in preventing periodontal disease (Table 8).

Concerning the attitudes of the student nurses towards our programme, the majority of them thought that they benefitted most from the toothbrushing demonstration and exercise (Tables 15 & 16). An analysis of some of the open ended questions indicated that they felt the health education programme was too extensive and heavy going, and that too much material was included in one lecture.

CLINICAL RESULTS

Following the dental health education programme, there was a significant improvement in the oral hygiene and gingival health of the student nurses, as revealed by the improved plaque and gingival index scores. For combined sites, there was a marked increase in the number of tooth sites with plaque scores 0 and a corresponding decrease in the number of sites scoring 1, 2 and 3 (Figure 4). Whereas, for the gingival index, there was a smaller increase in the number of gingival margin sites scored 0 and the number of sites with score 1 stayed about the same. The findings for the separate sites, that is buccal, lingual, and interproximal, are shown in Figures 5, 6 and 7. There could be two explanations for this finding: First, the student nurses did not receive any treatment, such as scaling before the evaluation, so the gingival response was not so encouraging; Second, the marked improvement in the plaque index scores on the day of evaluation, may be merely the result of toothbrushing prior to the evaluation.

Most of the student nurses welcomed this project and would like to have their curriculum extended to cover matters relating to oral health and disease, including oral disease prevention.

Programme evaluation

	Yes	No
Was programme adequate	20	2
Wish to include similar programme in curriculum	18*	4

* Number of nurses

Student Nurses Caritas 1986

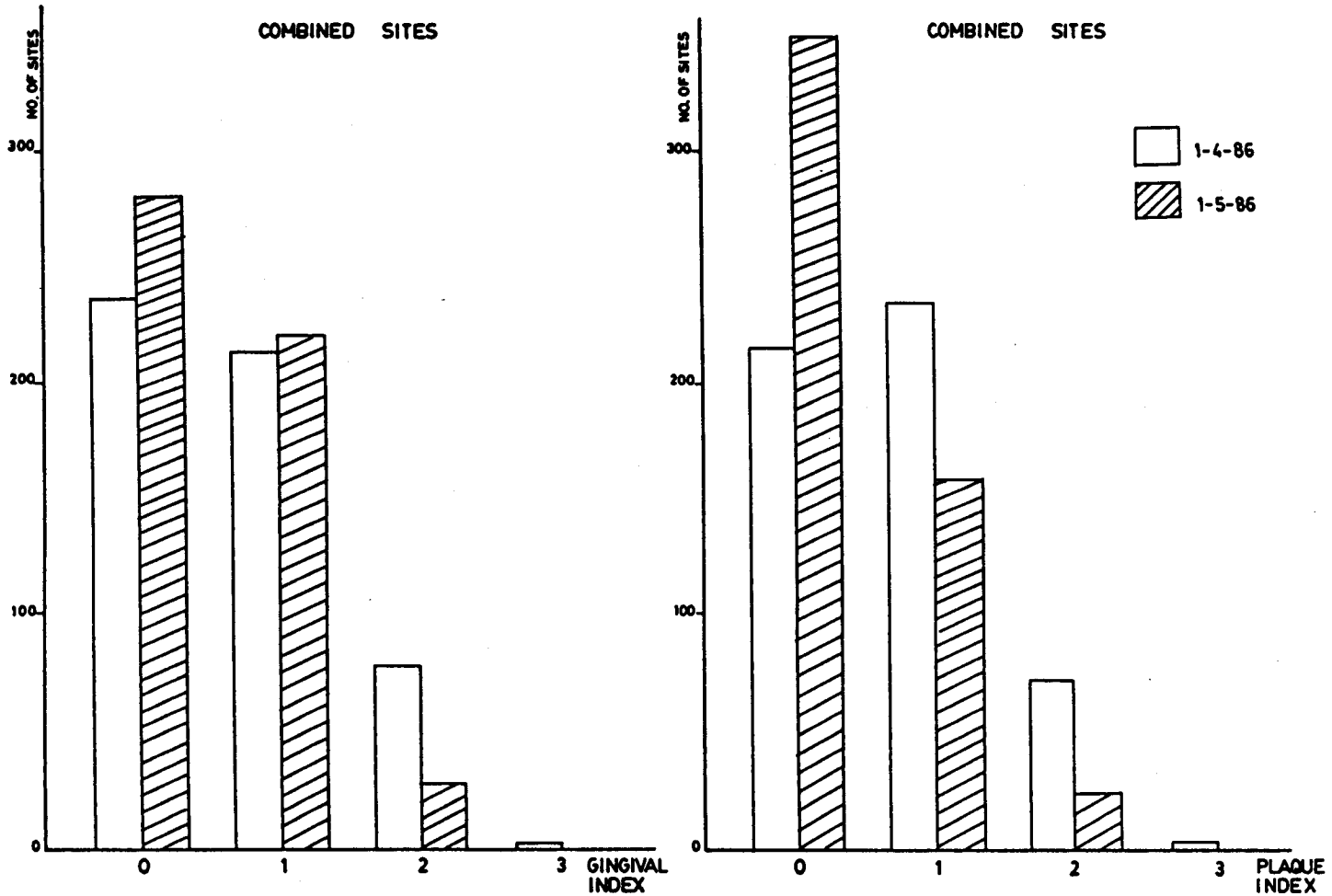
TABLE 15

Programme evaluation - Most benefit derived from	
Toothbrushing exercise	13*
Lecture	3
Overall programme	2
Display of oral hygiene aids	1
Prevention of caries and periodontal disease	2

* Number of nurses

Student Nurses Caritas 1986

TABLE 16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GINGIVAL INDEX
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PLAQUE INDEX

FIGURE 4

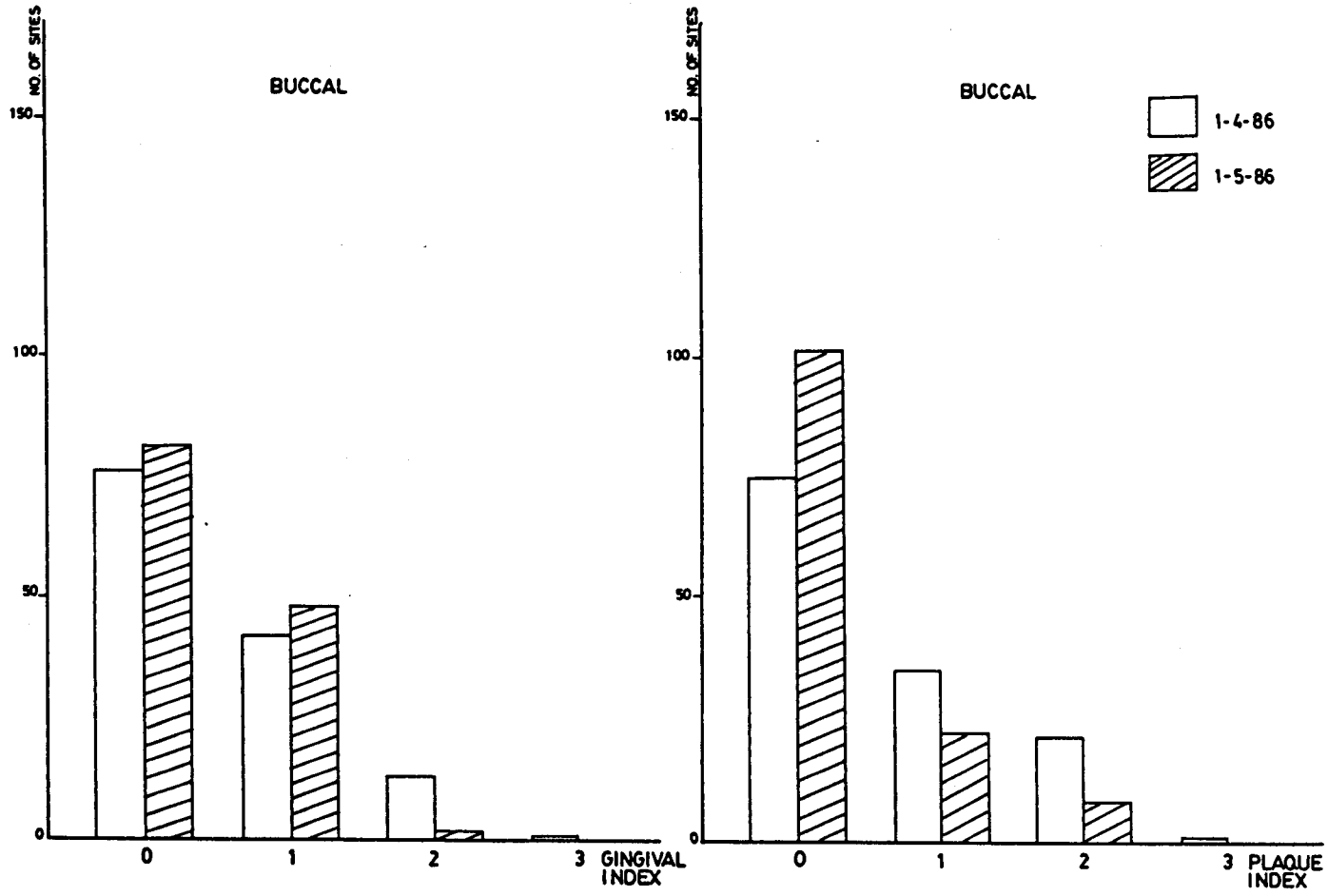
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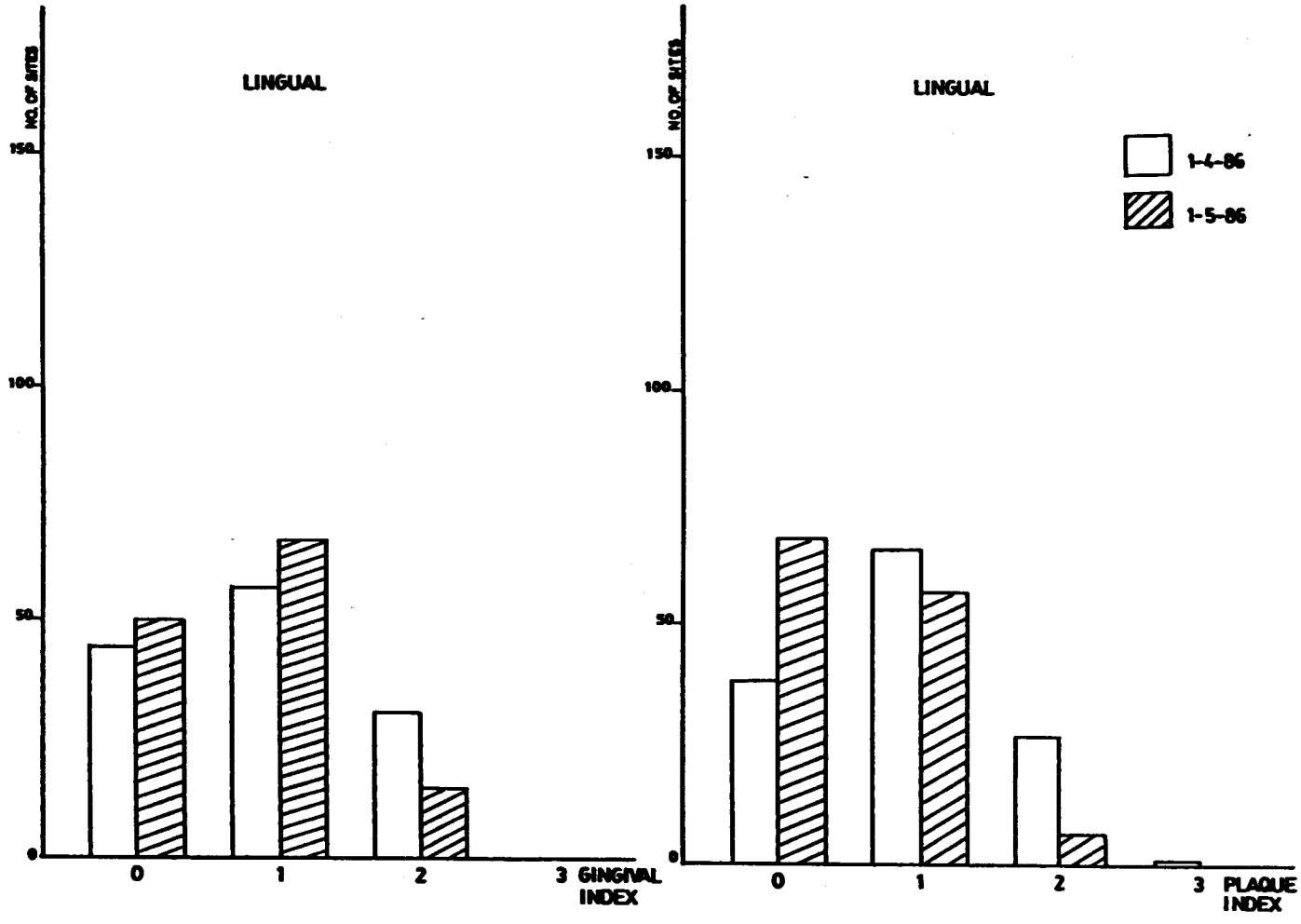
FIGURE 5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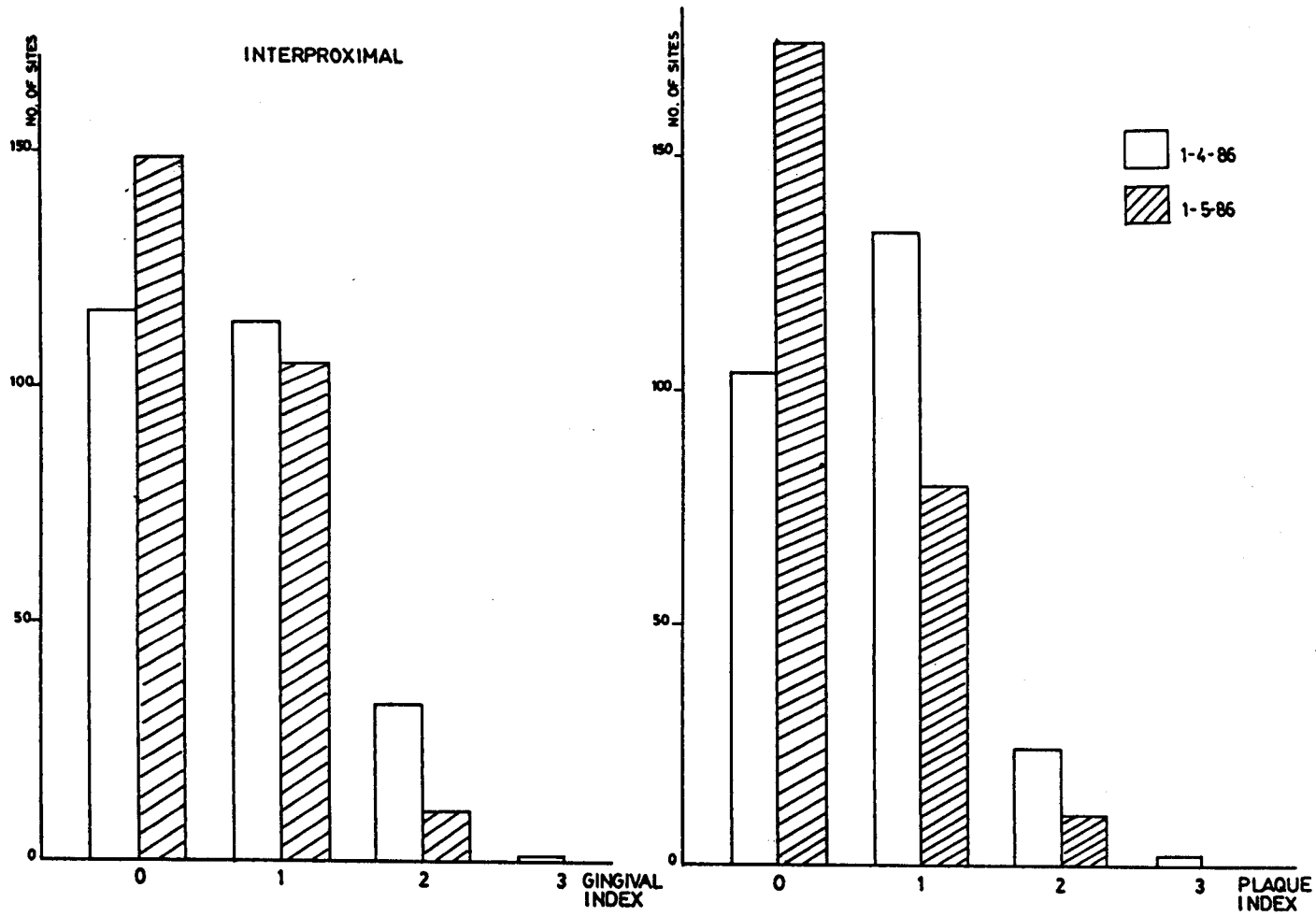
3 PLAQUE INDEX

FIGURE 6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PLAQUE INDEX
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1-5-86

FIGURE 7

CHAPTER 8

SEQUEL OF PROJECT

At the end of the programmes, 2 dental health education posters were given to the nursing school. Each student nurse was offered a mouth-mirror as a souvenir. From the evaluation of second questionnaire and the feedback of the nursing school, we decided to provide them with some dental health education materials. This consisted of a series of slides together with a cassette tape and instruction manual, serving as a self-instruction health education programme.

CHAPTER 9

CONCLUSIONS AND RECOMMENDATIONS

We have concluded that: first, an increase in the dental awareness among student nurses has been demonstrated following the health education programme, as indicated by the increase in their dental related knowledge; and second, that the oral hygiene status and gingival health of the nurses have improved.

One of our aims was to help student nurses take better care of their patients oral health. We had planned to incorporate this aspect in our project, but following the nurses block course of study, the class was broken up and the student nurses went individually to different wards to continue practical training.

It is recommended that in future projects of this type: first, that the nurses take an active role in the planning of the project; second, that the health education material is presented in smaller units at more than one seminar; third, that the student nurses learn how to evaluate one anothers plaque control; and lastly, that a solution must be found to the problem of following up the aspect of the effect of such programmes on patient care.

APPENDICES

1. The clinical examination form.
2. The questionnaire.
3. Text of the illustrated health education lecture.
4. List of demonstration material.
5. Contents of the oral hygiene package.
6. Financial report.

NAME _____

MEDICAL HISTORY

1. current drug treatment
2. current medical treatment
3. infectious diseases
4. bleeding tendencies
5. heart diseases

PLAQUE SCORE

0 = none
1 = visible on probe only
2 = visible on tooth
3 = heavy plaque accumulation

	16 (or 17)	21 (or 11)	26 (or 27)	36 (or 37)	41 (or 31)	46 (or 47)
Buccal						
Mesial						
Distal						
Lingual						

GINGIVAL SCORE

0 = normal
1 = inflamed but no bleeding
2 = bleeding on probing
3 = spontaneous bleeding

	16 (or 17)	21 (or 11)	26 (or 27)	36 (or 37)	41 (or 31)	46 (or 47)
Buccal						
Mesial						
Distal						
Lingual						

UNIVERSITY OF HONG KONG
FACULTY OF DENTISTRY
DEPARTMENT OF PERIODONTOLOGY & PUBLIC HEALTH

DENTAL HEALTH EDUCATION FOR STUDENT NURSES

QUESTIONNAIRE II

Instructions: Please indicate your choice by a tick. You may have more than one choice for each question.

1. Name: _____

2. Date of Birth: ☐☐ ☐☐ ☐☐
   DY MTH YR

3. How do you clean your teeth?

   a) ☐ toothbrushing _____ time(s) per _____ day(s)

   When? _____

   b) ☐ flossing (牙線) _____ time(s) per _____ day(s)

   When? _____

   c) ☐ others (please specify) _____

   _____ time(s) per _____ day(s)

   When? _____

4. a) Do you use toothpaste?

   ☐ Yes **(please continue question 4)**

   ☐ No **(please go to question 5)**

   b) Please give the brand of the toothpaste you are using now.

   _____

c) Does it contain fluoride (氟)?

- ☐ Yes
- ☐ No
- ☐ Don't know if it contains fluoride
- ☐ Don't know what fluoride is

d) Does your toothpaste have any other special properties (please specify)?

_____

5. Why do you clean your teeth?

- ☐ to remove calculus (牙石)
- ☐ to remove food debris
- ☐ to remove plaque (牙垢)
- ☐ to remove stain (牙渍)
- ☐ to masaage the gums (按摩牙肉)
- ☐ habit
- ☐ others (please specify) _____

6. What is the use of fluoride?

It helps to prevent:

- ☐ bad breath
- ☐ caries
- ☐ gum disease
- ☐ don't know

7. What is/are the common source(s) of fluoride (氟)?

- ☐ bone soup
- ☐ milk
- ☐ tea
- ☐ toothpaste
- ☐ water
- ☐ others (please specify) _____
- ☐ don't know

8. How often do you have the following items between meals (including 宵夜)?

- ☐ sweet snacks: _____ time(s) per _____ day(s)
- ☐ sweet drinks: _____ time(s) per _____ day(s)

9. Have you ever encountered the following problems? (Please tick the problem(s) you have encountered and indicate Your Management of them by choosing from the answers in the box below.)

a) ignore it	e) herbal tea (凉茶)
b) visit a dentist	f) antiseptic mouth rinse (漱口水)
c) visit a doctor	
d) self-medication	g) others (please specify)

Problem	Your Management
☐ toothache/tooth sensitivity	_____
☐ bleeding gums	_____
☐ painful/swollen gums	_____
☐ tooth mobility	_____
☐ caries (虫牙)	_____
☐ bad breath (口臭)	_____

10. What do you think caries (蛀牙) is caused by?

- ☐ aging
- ☐ bacteria
- ☐ food debris
- ☐ heating humour (熱氣)
- ☐ heredity (遺傳)
- ☐ plaque (牙垢)
- ☐ sweet food + drinks
- ☐ others (please specify) _____
- ☐ don't know

11. What do you think caries (蛀牙) can lead to?

- ☐ abscess (牙瘡)
- ☐ bad breath (口臭)
- ☐ cavitation (牙窿)
- ☐ headache
- ☐ loss of teeth
- ☐ toothache
- ☐ tooth mobility
- ☐ others (please specify) _____
- ☐ don't know

12. What do you think Periodontal Disease (牙周病) is caused by?

- ☐ aging
- ☐ bacteria
- ☐ calculus (牙石)
- ☐ careless toothbrushing
- ☐ food debris
- ☐ heating humour (熱氣)
- ☐ heredity (遺傳)
- ☐ plaque (牙垢)
- ☐ pregnancy
- ☐ sweet food & drinks
- ☐ others (please specify) _____
- ☐ don't know

13. What do you think Periodontal Disease (牙周病) can lead to?

- ☐ abscess
- ☐ bad breath
- ☐ bleeding gums
- ☐ loss of teeth
- ☐ painful gums
- ☐ exposed root surface (牙齒外露)
- ☐ swollen gums
- ☐ toothache
- ☐ tooth mobility
- ☐ others (please specify) _____
- ☐ don't know

14. Do you have regular dental check-ups?

- ☐ Yes **(please go to question 15)**
- ☐ No **(please go to question 16)**

15. How often is your dental check-up?

_____ time(s) per _____ year(s)

(please go to question 17)

16. What is/are your reason(s) for not having regular dental check-ups?

- ☐ no time
- ☐ too expensive
- ☐ no dentist available
- ☐ dental service not satisfactory
- ☐ unnecessary
- ☐ fear e.g. pain
- ☐ other (please specify) _____

17. What do you think is the ideal frequency for dental check-up?

_____ time(s) per _____ year(s)

18. Which of the following(s) have you received?

- ☐ orthodontics (矯牙)
- ☐ extractions (脫牙)
- ☐ fillings (補牙)
- ☐ scaling/prophylaxis (洗牙)
- ☐ oral hygiene instruction
- ☐ denture (假牙)
- ☐ crown/bridge (牙冠/牙橋)
- ☐ root canal therapy (杜牙根)
- ☐ others (please specify) _____
- ☐ no dental treatment before

- The End -

Thank You for Your Co-operation

15. How often is your dental check-up?

_____ time(s) per _____ year(s)

(please go to question 17)

16. What is/are your reason(s) for not having regular dental check-ups?

- ☐ no time
- ☐ too expensive
- ☐ no dentist available
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- ☐ orthodontics (矫牙)
- ☐ extractions (脱牙)
- ☐ fillings (补牙)
- ☐ scaling/prophylaxis (洗牙)
- ☐ oral hygiene instruction
- ☐ denture (假牙)
- ☐ crown/bridge (牙冠/牙桥)
- ☐ root canal therapy (杜牙根)
- ☐ others (please specify) _____
- ☐ no dental treatment before

19. Would you like to have a dental education programme similar to our project incorporated into your curriculum?

☐ Yes

☐ No

20. Is the information provided by our programme adequate?

☐ Yes

☐ No

21. From which part(s) of the programme do you benefit most?

_____

_____

22. Other comments.

_____

_____

_____

- The End -

Thank You for Your Co-operation

SCRIPT OF LECTURE

Every person, during his lifetime, usually has altogether 52 teeth, including 20 deciduous teeth, and, 32 permanent teeth. *A set of sound, healthy teeth is important in 3 major aspects, namely, chewing, speech, and communication, and especially for, young ladies, a healthy, attractive smile. All of these are pertinent to the quality of our lives. However, if we don't take good care of our teeth, they will easily become diseased and we lose the useful functions served by our teeth. Among these dental diseases, caries and periodontal disease (or, more commonly, known as gum disease) are the commonest.

In this slide show, we're going to give you a brief idea of these 2 major dental problems: how they come about, the signs and symptoms and how they can be prevented. Towards the end, we've also included dental problems of hospitalised patients so that you can recognize them and help them.

Everybody must have heard about caries or some of you may even have their own caries experience.

(Just to remind you of the normal tooth structure.)

Caries starts as a small point weakness beneath the enamel surface due to the result of minerals in the tooth get dissolved away. If the disease is allowed to progress, the enamel surface is destroyed and a small hole is formed. With this hole in place, food debris will be retained more easily and difficult to clean out and the lesion will progress even faster and the hole gets larger into the dentine layer.

Because there are nerve fibers in this dentine, you will feel pain and soreness over the involved area. Eventually, the disease gets into the pulp and the pulp dies giving rise to an abscess at the root tip, presenting as a swelling in the gum, and the condition is extremely painful.

The pus contained in the abscess can spread down the neck or up to head to give rise to life-threatening situation. That's why it's important to treat the disease quickly before it reaches such an advanced stage.

The other major dental disease is periodontal disease which is receiving wider concern as public media coverage is increased. Actually, it can be said that periodontal disease is one of the most common diseases of mankind.

In it's early phase, the gum margin will appear red and inflammed. Bleeding when brushing is a common complaint. Unfortunately, Chinese tend to think of it as due to heating humour ( ) and do not pay any attention to it. The inflammation will then get worse, the gum will shrink as a result of tissue destruction, exposing the root surfaces of the teeth, and the teeth become loose and eventually may be lost.

At times, acute periodontal disease can also give rise to abscesses and the involved tooth may then need to be removed.

Now then, how do these diseases arise? What is the etiology or cause of these diseases?

Basically, both caries and periodontal disease is caused by plaque. Plaque is an accummulation of bacteria and by-products on the tooth surface. Usually it is transparent or whitish resembling food debris and most people just mistake it as food left-overs. But under the microscope, we can see bacteria of various sizes and shapes.

For caries, whenever sweet food is taken, the plaque will take up the sugar and produce acid which, in turn, attacks and dissolves the tooth substance. On the other hand, in periodontal disease the thick layer of plaque takes up calcium salts from the saliva and this turns into stony hard substances called calculus ( ).

Toxins/poisons will be released from this plaque which destroys the gum tissue and leads to all the symptoms of periodontal disease. So how can we guard against caries and periodontal disease?

As we've said, plaque is the major contributing factor in both diseases, a good way is, therefore, to remove the plaque. We usually call it plaque control, which can be achieved by brushing - twice a day, once in the morning, and before retiring to bed. Besides brushing there are other means and equipment available for keeping our teeth clean. Like, for example, floss and special toothpicks and special brushes to help cleaning spaces in between our teeth.

For preventing periodontal disease, effective plaque control is usually sufficient, however, if we are to protect our teeth from caries, we must, in addition, reduce/limit our amount of sugar intake. Whenever we consume any sugary food or drinks, acid will be liberated from the plaque bacteria lasting for as long as 20 minutes. Since the acid will dissolve tooth substances, there will be 20 minutes under which the tooth substance is at risk to becoming carious each time we eat sweets. Take for example, if you have one sugary snack between meals you will have an extra 20 min. of acid attack. If you have 2 sugary snacks between meals, there will be 40 minutes of extra acid attack and so on. Therefore, we should reduce the frequency of sugar intake in-between meals to a minimum and brush your teeth well. Alternatively, you can choose other snacks like fruits, peanuts, potato chips that contain minimal amounts of sugar.

Another solution to the problem of dental caries is Fluoride - a mineral that strengthens the teeth and made them less prone to carious attack. We are very fortunate in that Hong Kong has had a fluoridated water supply since 1960 and people in Hong Kong have less caries than people in other parts of the world, which do not have fluoride in water.

Apart from tap water, other sources of fluoride include, tea and fluoride toothpaste. Bone soup and herbal tea can also contain Fluoride.

Hospital patients, like other people, need to take good care of their teeth. Though, in many instances, these people are either too weak or physically unable to maintain a high level of oral cleanliness by themselves. So when all of you become nurses, you can help these patients with their plaque control. On some particular occasions, there are patients who need to give special attention to their oral hygiene. Patients who have undergone radiotherapy for treatment of cancer in the head and neck region may develop a condition known as radiation caries, because their saliva secretion is reduced. For such patients, it is extremely important to keep teeth very clean or else the teeth may easily become diseased to an exaggerated extent.

Another condition which may concern all of you one day is pregnancy. Pregnant women are particularly liable to develop periodontal disease because of an alteration in the hormone secretion state. At times, it can become quite severe. Again, this is preventable by keeping the mouth clean.

Diabetic patients can have problems similar to pregnant women though for a different reason.

Another category of patients at risk is patients with epilepsy. If they do not brush their teeth well, their gums will fibrose and enlarge to cover the teeth.

Patients with chronic renal failure have an increased tendency to form heavy calculus.

Patients on dialysis must keep their teeth very clean in order to prevent complications due to dental infection.

In addition, a healthy dentition and oral cavity should be considered a basic must before undergoing renal transplantation if secondary infection is to be avoided. And needless to say, patients who are mentally retarded needs help to clean their teeth.

Patients wearing dentures should take them out for the night, brush the dentures and immerse them in a glass of tap water.

List of demonstration materials for small group discussion:

1. Toothbrushing technique:

    a. large demonstration model
    b. large demonstration toothbrush

2. 'How to choose your toothbrush':

    a. suitable brush
    b. unsuitable brush . brush with hard bristles
    . brush with long and large head
    . brush which is unsatisfactorily old

3. Dental floss:

    a. waxed dental floss
    b. unwaxed dental floss

4. Other interdental aids:

    a. single-tufted brush
    b. wooden sticks (Inmident, Interdent)

5. Disclosing technique:

    . Disclosing tablets

6. Simple dental treatments:

    a. Filling
    . tooth with prepared cavity
    . tooth with amalgam inserted
    b. Scaling
    . tooth with calculus
    . tooth without calculus

Contents of the Oral Hygiene Package

1. Toothbrush
2. Fluoridated toothpaste
3. Dental floss
4. Oral hygiene instruction sheet
5. Disposable small mouthmirror
6. Disclosing tablets

A DENTAL HEALTH EDUCATION TO THE STUDENT NURSES - THE CARITAS PROJECT

FINANCIAL REPORT

A. Photography		
	Feb	$23.00
	Mar	26.00
		15.00
	Apr	20.00
		22.50
	May	15.00
	Oct	21.00
B. Photocopy		
	Feb	2.40
		1.00
	Mar	0.40
	Apr	1.60
		1.60
		2.40
	Oct	4.40
		5.40
		6.20
		9.00
C. Travelling Expenses		
	Apr	20.00
		10.00
		20.00
D. Stationery		
	Mar	3.60
		7.50
	Oct	15.00
E. Miscellaneous		
	Mar	108.00
		$361.00